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Progress Report

North Carolina Grape Council
1020 Mail Service Center
Raleigh, NC 27699-1020

TITLE: Evaluation of Grape Cultivars and Clones for North Carolina

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Site:

The site for this study will be the Upper Piedmont Station at Reidsville. Though not an ideal site, an experimental vineyard site is already there. The station already has the equipment needed for managing a vineyard and has been extremely cooperative in assisting with harvest, pruning, spraying, spray materials, netting for birds, and other vineyard practices. This has been at no cost to my project to date.

Variety Selection:

Plants for this study were ordered in November 2006 for planting spring 2008. Varieties to be planted at the Upper Piedmont Station at Reidsville, NC are Aglianico, Black Spanish (Le noir), Cabernet Sauvignon clone 8 (sentinel cultivar), Carmenere, Grignolino, Lemberger, Marselan, Merlot clone 3 (sentinel cultivar), Nebbiolo, Sunbelt, Tinta Cao, and Touriga nacional. Sunbelt and Black Spanish will be used in border rows for observation. The other varieties will be replicated 5 times in a randomized complete block design. All varieties are on 101-14 rootstock except Black Spanish and Sunbelt since both are tolerant of phylloxera.

Information on the varieties selected:

Cabernet Sauvignon cl. 8 and Merlot cl. 9 were selected for warm growing regions as the sentinel varieties that will allow comparison between states.

Carmenere: One of the original Bordeaux varieties, but no longer grown there in any significant quantity. It is grown in Chile with good success.

Grignolino: An Italian variety of the Piedmonte region that ripens late, but has some disease resistance. It has a high proportion of seeds that can contribute to wine bitterness if improperly vinified. It tends to have high acidity.

Lemberger: A grape originating from Austria that produces a fruity, early maturing wine. Acidity levels tend to be consistent from year to year regardless of temperature.

Marselan: A relatively new variety (1961) developed from a cross between Cabernet Sauvignon x Grenache. It is grown predominantly in the Languedoc region of France. It makes a light bodied red wine.

Nebbiolo: An Italian red grape used to produce Barolo and Barbaresco wines. It can be a difficult variety to grow and likes calcareous soils (should be a real challenge in NC). It ripens late, but has some disease resistance.

Tinta Cao: A Portuguese variety from the Douro Valley used in Port production. It can be difficult to grow. It has thick skins.

Touriga nacional: Another one of the Port varieties, it tends to have high tannin and dark fruit flavors. It is starting to be used to produce some table wines.

Black Spanish (aka Le noir) and Sunbelt are included as border row varieties for observational purposes. They both grow pendulantly rather than upright and require a single high-wire trellis rather than a VSP system.

Black Spanish: Grown in Texas and Mexico, this variety is relatively more tolerant of Pierce's Disease than other non-muscadine grape varieties. It is a *Vitis labruscana* that can be used for wine, juice or jelly. It has relatively high tannin and acidity and is susceptible to black rot and downy mildew.

Sunbelt: This variety was developed in Arkansas and is nicknamed "Southern Concord." Juice quality of fruit produced in Southern climates is superior to that of Concord grown in the south. It has a relatively late bud break, is moderately resistant to black rot and anthracnose and highly resistant to powdery mildew and downy mildew.

Funding for 2008 is for partial support of planting costs and vineyard establishment.